Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

Section 1. GENERAL INFORMATION

(A) Owner of well: NASA White Sands Test Facility — Owner's Well No.: BLM-36
Street or Post Office Address: P.O. Box 20
City and State: Las Cruces, NM 88004

Well was drilled under permit No.: No permit - monitoring well and is located in the:

a. Center ¼ SE ¼ SE ¼ of Section 33 Township 20S Range 3E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ zone in the _____ Grant.

(B) Drilling Contractor: Stewart Brothers Drilling Company — License No.: WD 331

Address: P.O. Box 2067, 306 Airport Rd., Milan, NM 87021

Drilling Began: 01/20/99 Completed: 05/18/99 Type tools: Rotary Size of hole: 12 ¼ in.

Elevation of land surface or _____ at well is: Approx. 4638 ft. Total depth of well: 905 ft.

Completion well is: ☒ shallow ☐ artesian. Depth to water upon completion of well: Approx. 320 ft

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
330	350	20	Alluvium (Santa Fe Group)	Unknown
350	430	110	Rhyolite	Approx. 2
430	560	110	Altered volcanics and Rhyolite tuff	Approx. 7
560	960	400	Altered rhyolites and rhyodacties	Approx. 10

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To
14			0	100	100	None	Surface Casing	
4			0	905	905	Steel	outer casing (see Section 7)	
1.5			0	885	885	None	inner casing	

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
0	100	17 ½"		60	Pressure grout from inside of surface casing
0	210	12 ¼"		174	Tremie pipe cement down annulus above completion materials

Section 6. LOG OF HOLE

Depth in Feet		Thickness in Feet	Color and Type of Material Encountered
From	To		
0	330	340	Multi-colored alluvium (Santa Fe Group)
330	350	20	Tan to light brown altered volcanic clay
330	430	100	Olive gray rhyolite
430	440	10	Light brown altered volcanics
440	560	120	Pale gray rhyolite tuff
560	610	50	Light brown rhyodacite
610	640	30	Pale light green rhyolite
640	700	60	Pale tan to pale green altered rhyolite clay
700	740	40	Tan to light brown rhyodacite
740	850	110	Pale green rhyolite
850	960	110	Dusky red rhyodacite

Section 7. REMARKS AND ADDITIONAL INFORMATION

Well is constructed of 1.5" diameter PVC Westbay Multi-Port System® casing installed within 4" stainless steel well casing. Westbay® packers are inflated inside the 4" casing and are located immediately above and below screened zones in the 4" casing. Specialized measurement and pumping ports are located on the Westbay® well within sampling zones. Conventional screened/Westbay® sampling zones are located 340' - 360', 600' - 620', 790' - 810', and 850' - 870'.